

SSLWM paper B6 Luang Prabang 13-12-2006


***Criteria and indicators for ecosystem reward and compensation mechanisms: realistic, voluntary, conditional and pro-poor***

Meine van Noordwijk, Beria Leimona, Grace Villamor, and Minh Ha  
ICRAF Southeast Asia



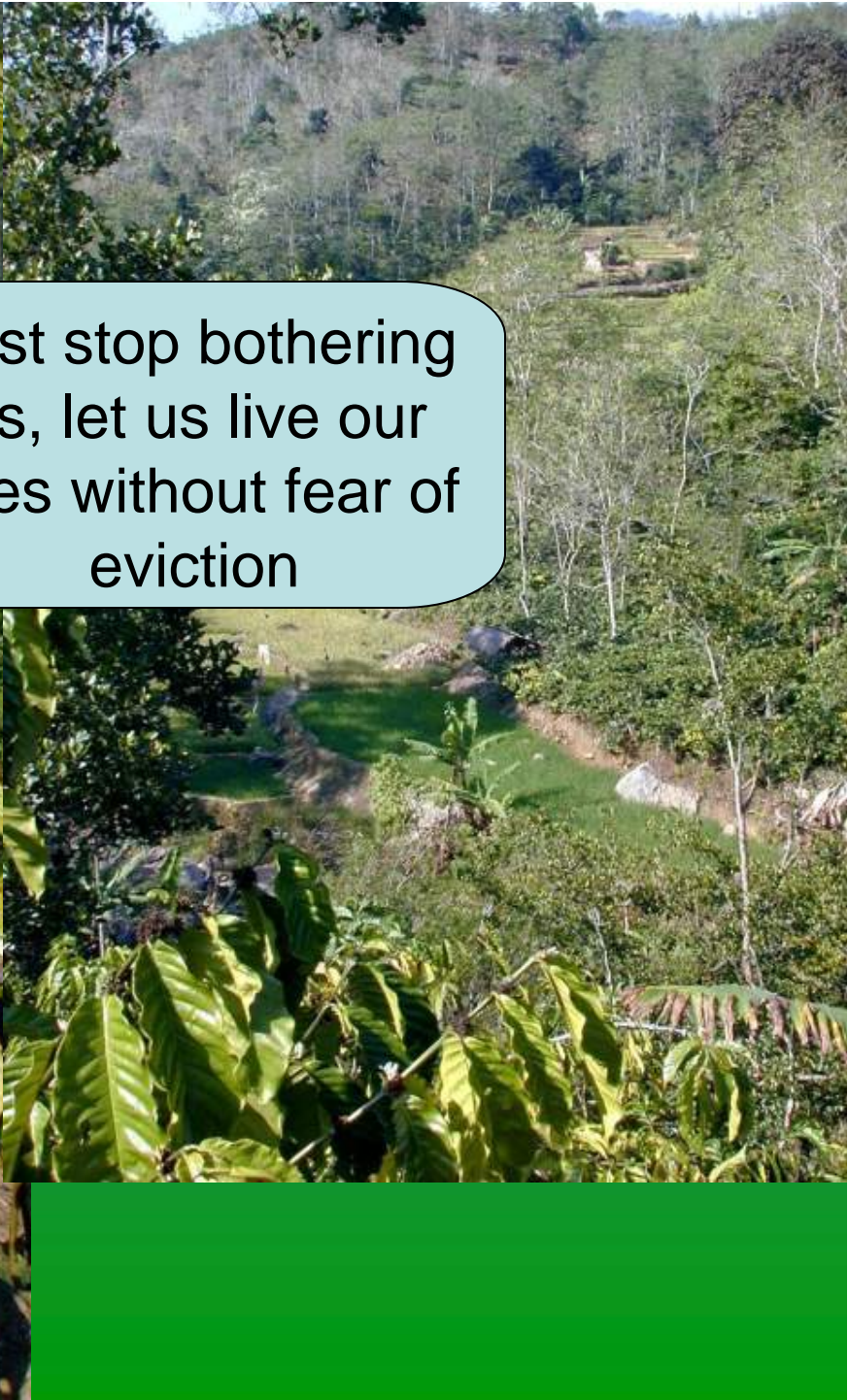
Correspondence: [m.van-noordwijk@cgiar.org](mailto:m.van-noordwijk@cgiar.org)





Who wants to  
reward me for what  
service?

The image shows an elderly woman wearing a blue headscarf, a white patterned shirt, and a colorful orange and yellow sash. She is standing next to a young child in a rural, hilly area with trees and a dirt path. A speech bubble is overlaid on the image, containing the text 'Who wants to reward me for what service?'.



Just stop bothering  
us, let us live our  
lives without fear of  
eviction

The image shows a lush green rural landscape with a dirt path, trees, and a small body of water. A speech bubble is overlaid on the image, containing the text 'Just stop bothering us, let us live our lives without fear of eviction'.

- “...in order to develop tourism, we have paid more attention to environmental protection, particularly the green and sustainable management of watershed, lands and forests in order to attract more tourists.”

**Mr. Bounhueang Duangphachan, Provincial Governor, Luang Prabang in his welcome address to SSLWM workshop 12-12-2006**





# MDG's

**Empowerment,  
institutions &  
governance**

**Human develop-  
ment Index (HDI)**

**Market-driven  
production**

Poverty

Institutions

**SSLWM**

Markets

Ecology

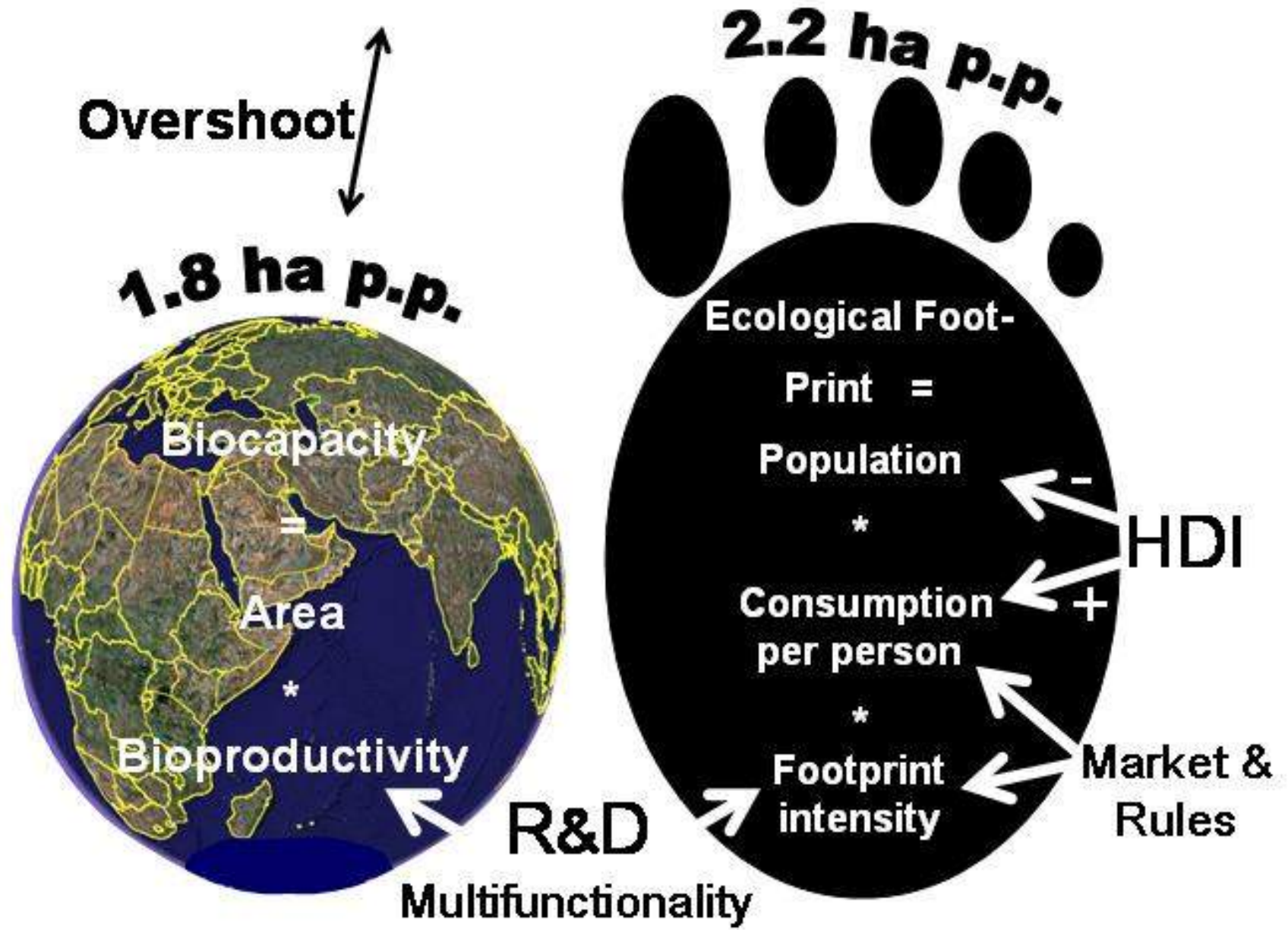
**Land access and public  
environmental services**

**Economic  
growth**

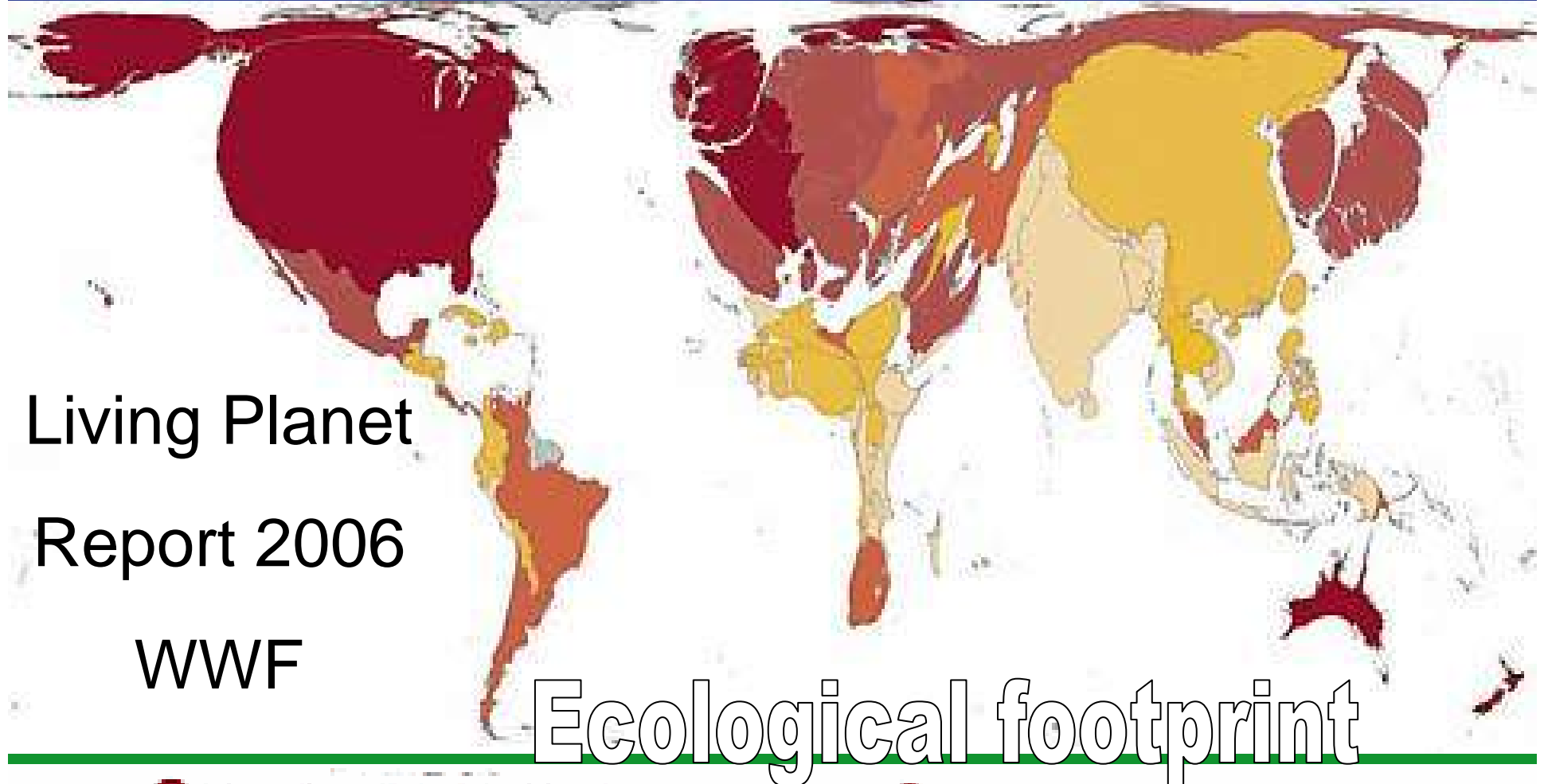
**Markets for environ-  
mental services**

**Ecological  
footprint**

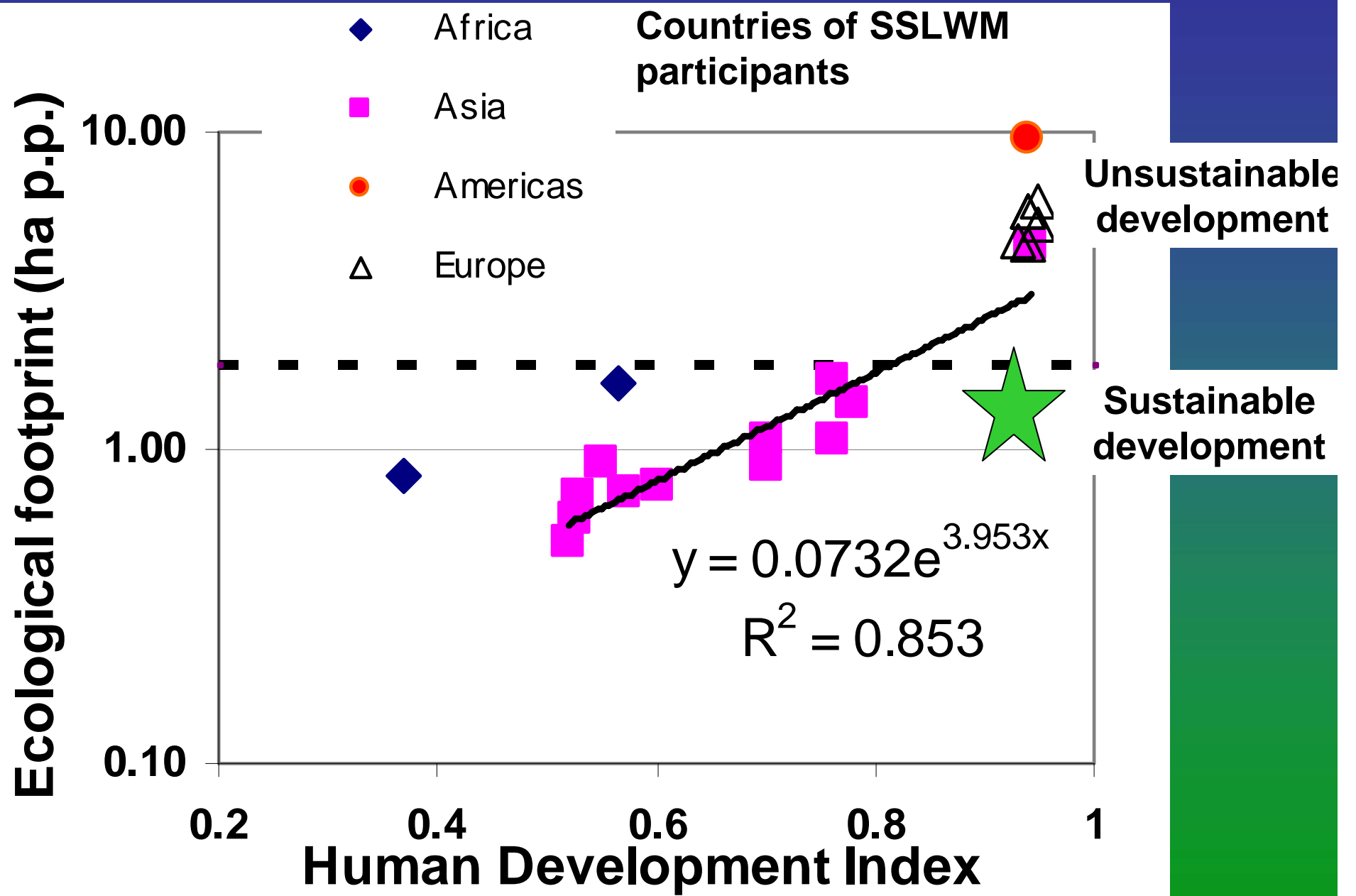




**Only one earth --  
but we already need 1.5**

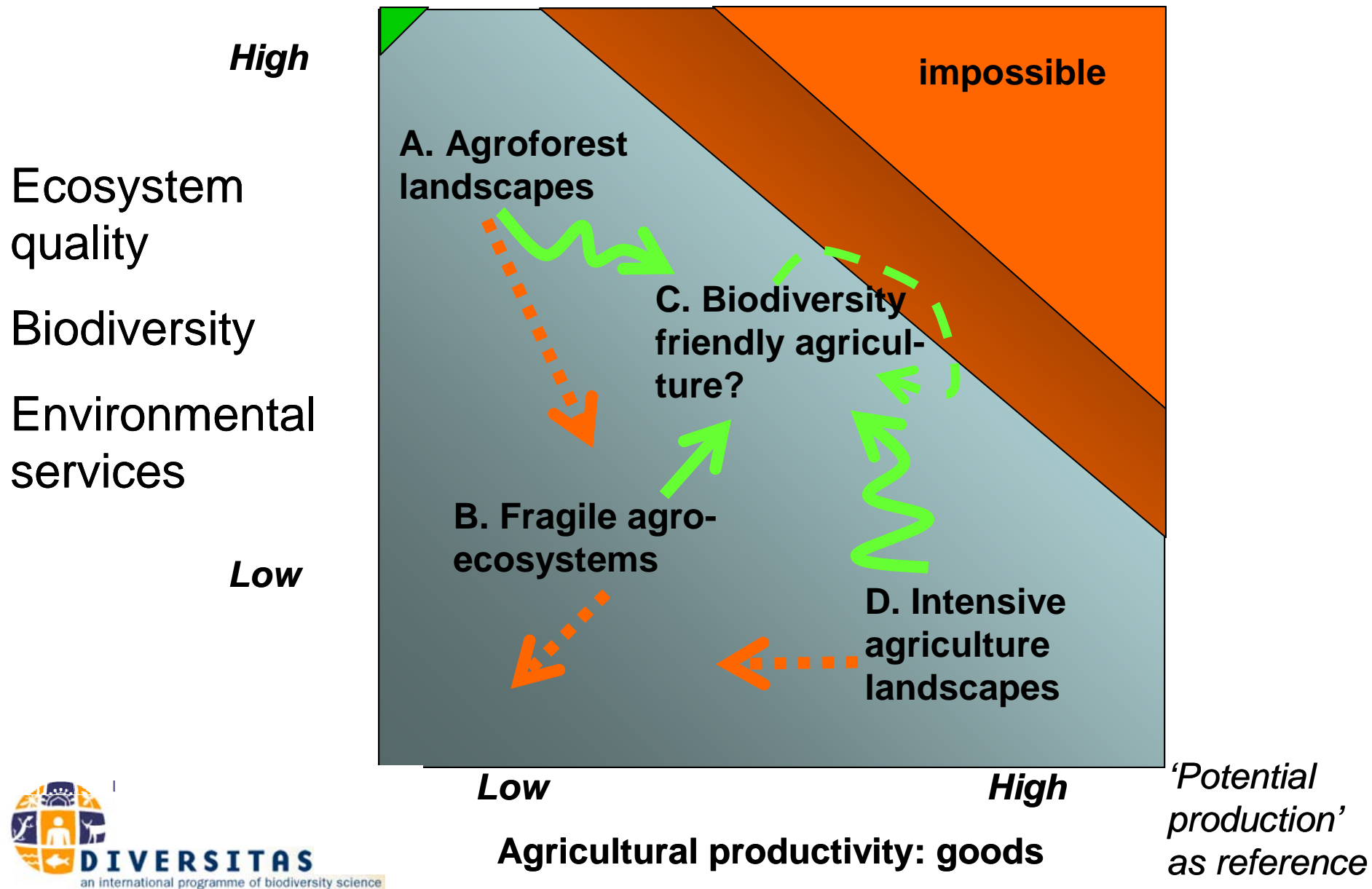


- More than 5.4 global hectares per person
- 3.6–5.4 global hectares per person
- 1.8–3.6 global hectares per person
- 0.9–1.8 global hectares per person
- Less than 0.9 global hectares per person
- Insufficient data





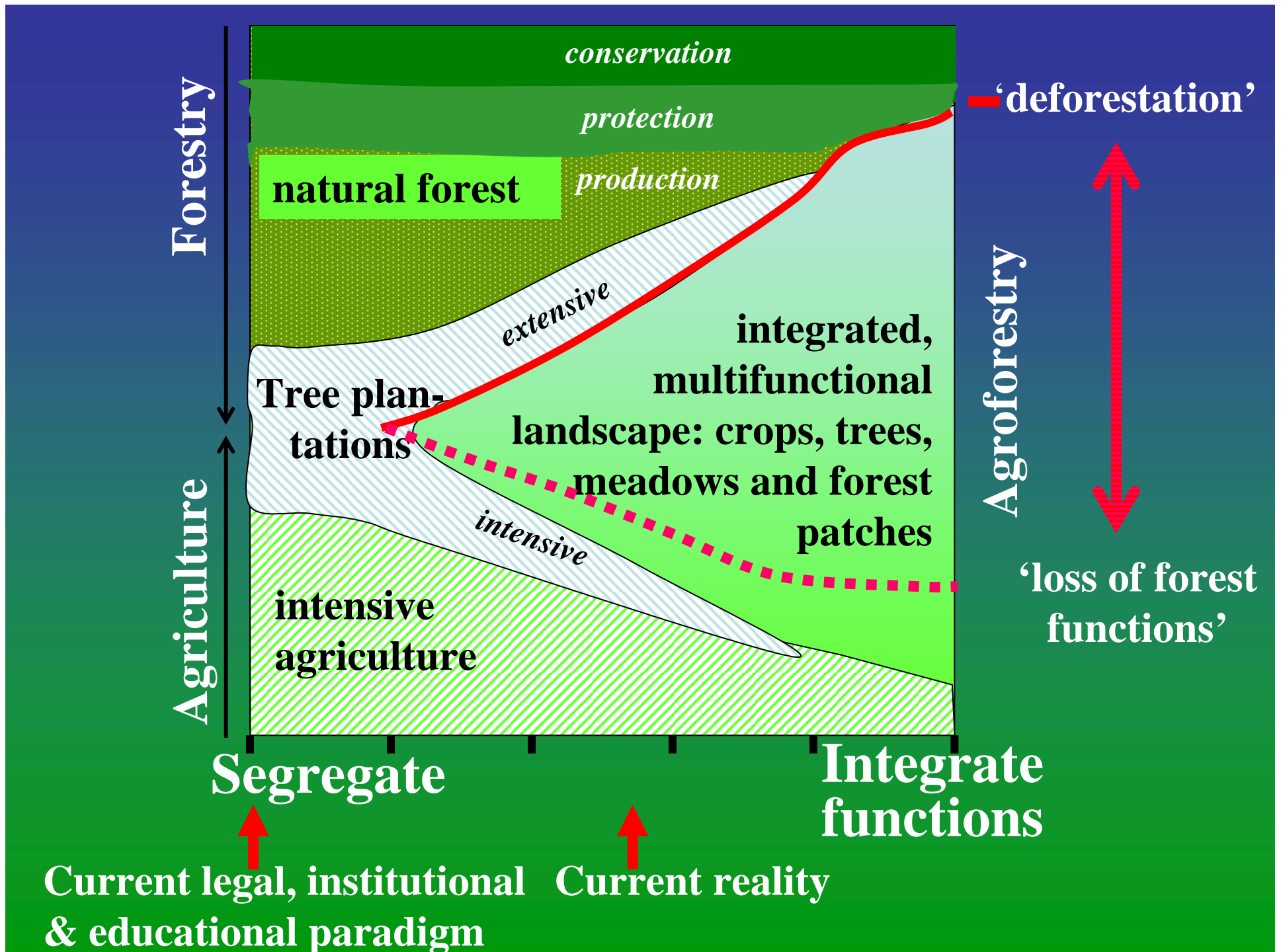
*'Natural' point of reference*



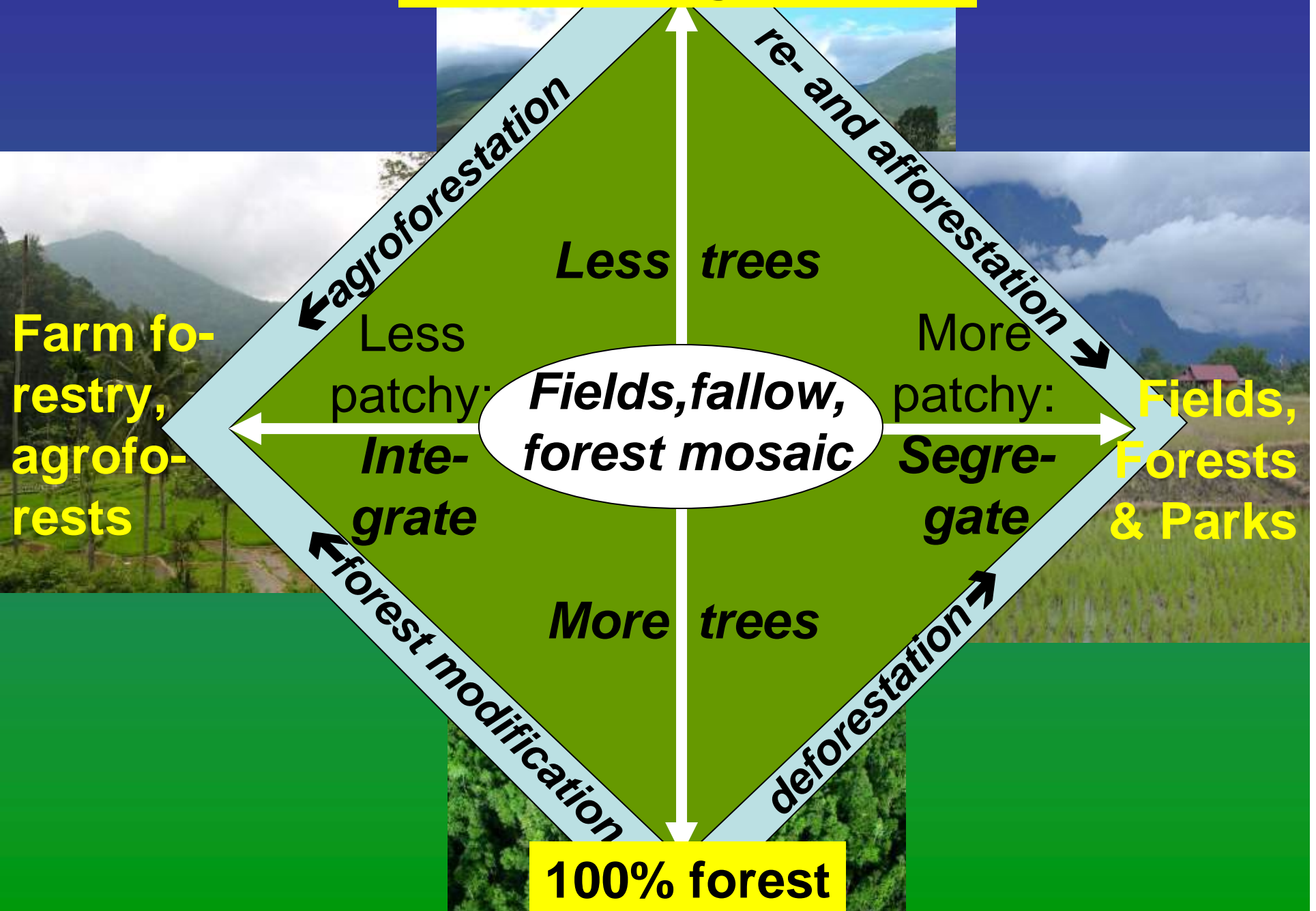
**Pathways to be avoided**

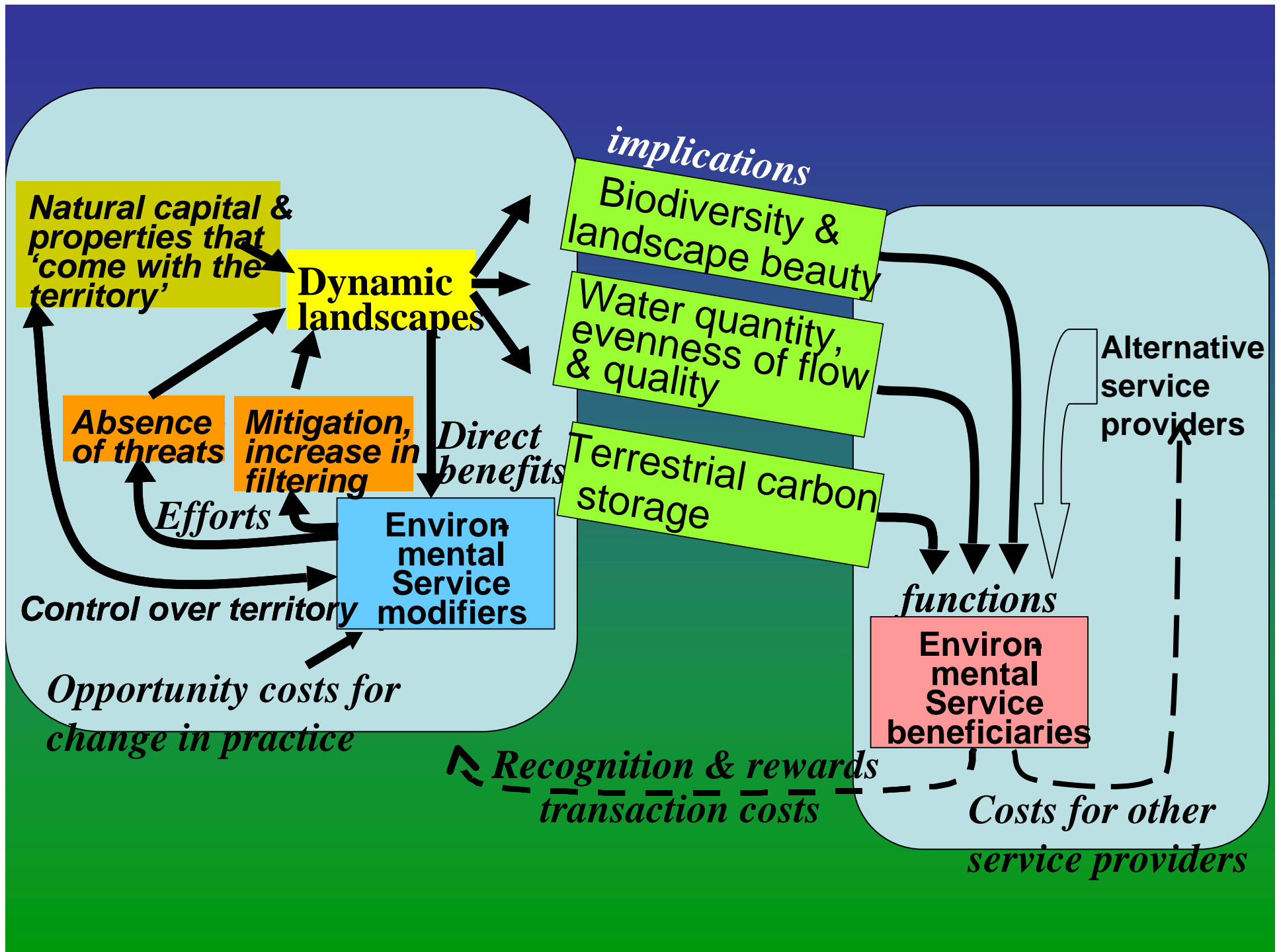


**Socially desirable pathway**



**Open field agriculture**

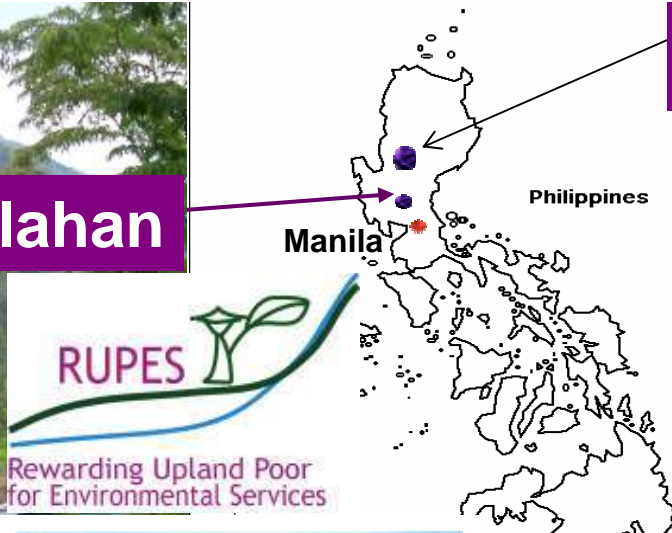








**Kalahan**



**Bakun**



**Kulekhani, Nepal**



**Singkarak  
West Sumatra**



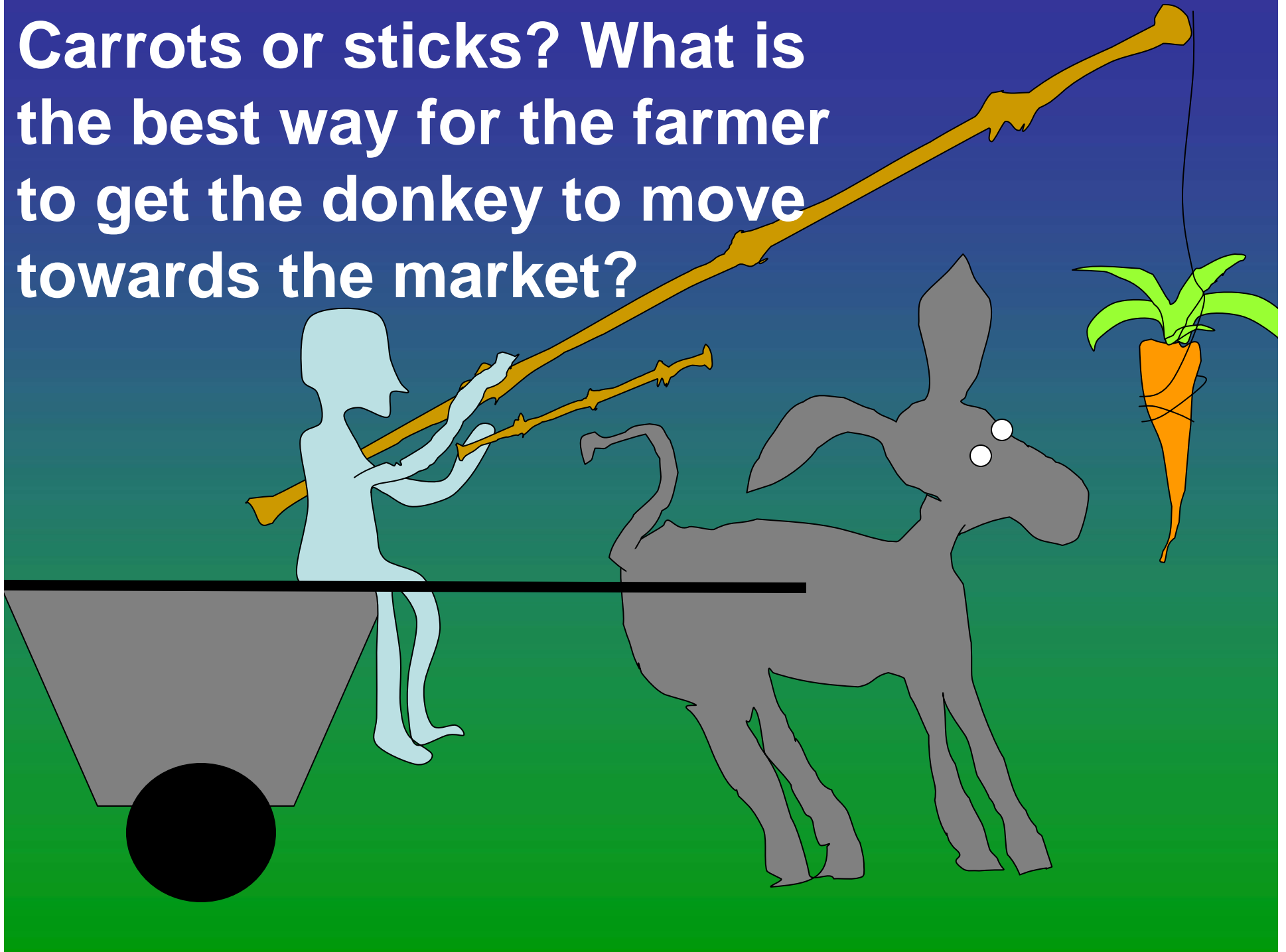
**Bungo  
Jambi**

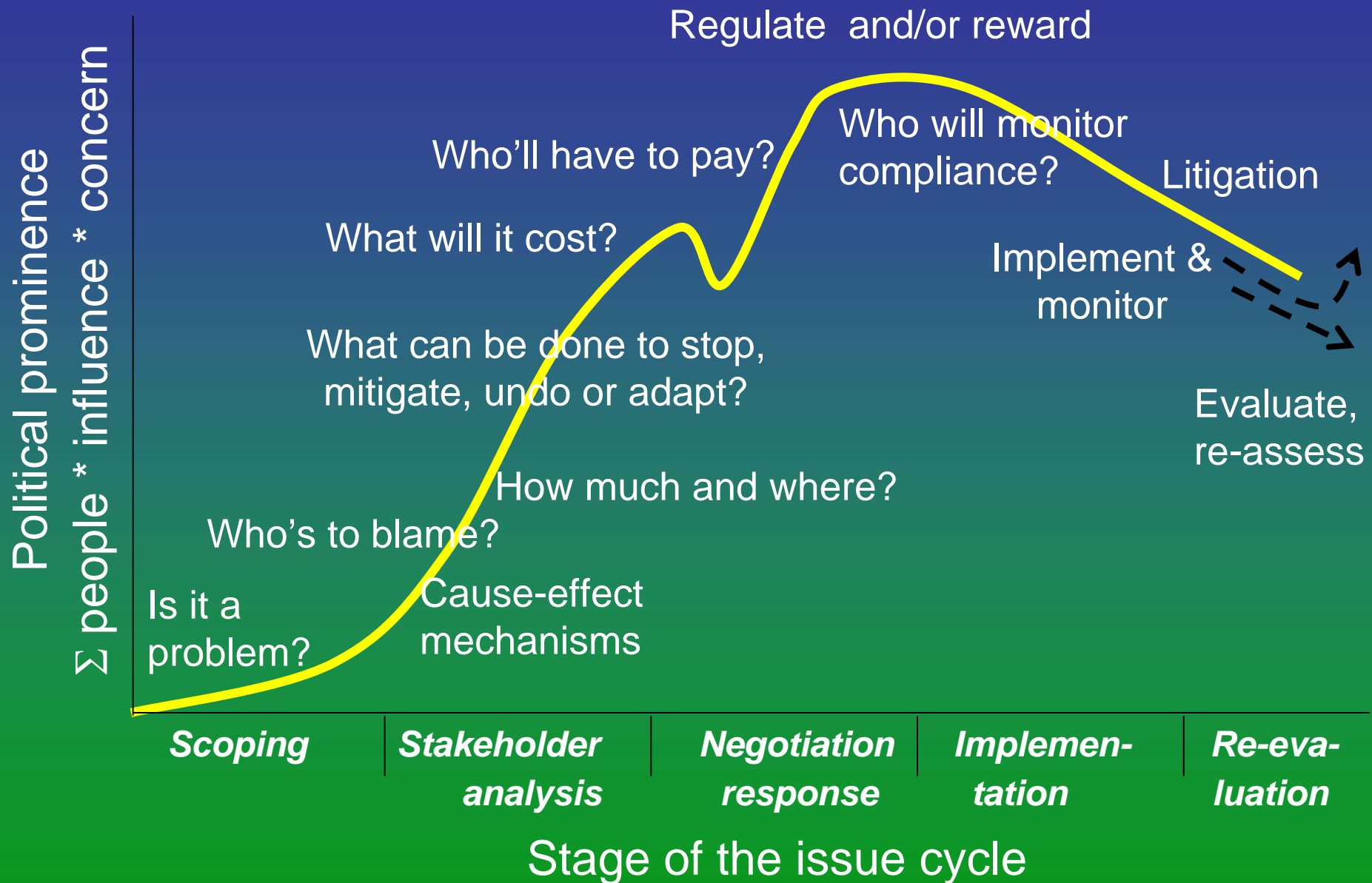


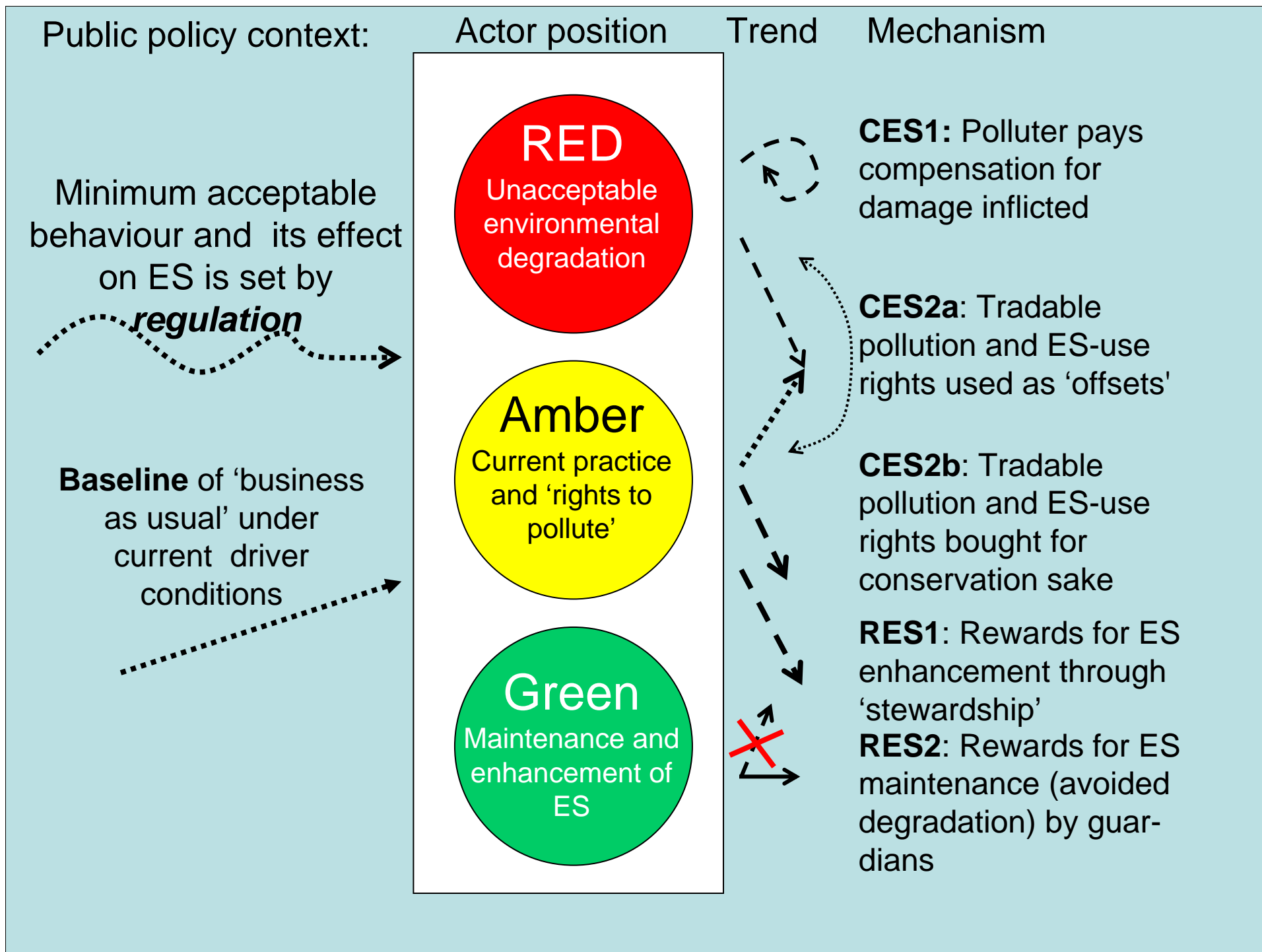
**Sumberjaya  
Lampung**



Carrots or sticks? What is the best way for the farmer to get the donkey to move towards the market?









# Four criteria for effective rewards for environmental services

## – Realistic

- ❖ Based on cause-effect mechanisms at appropriate temporal & spatial scale
- ❖ Align with opportunity costs for ‘sellers’ and avoided costs for ‘buyers’: market can seek price level in between

- **Conditional** : ‘no honey no money’, clarity of criteria for monitoring

– **Pro-poor**: as rural poor are both victims & actors; many PES mechanisms involve exclusion and are linked to land ownership (not ‘pro-poor’)

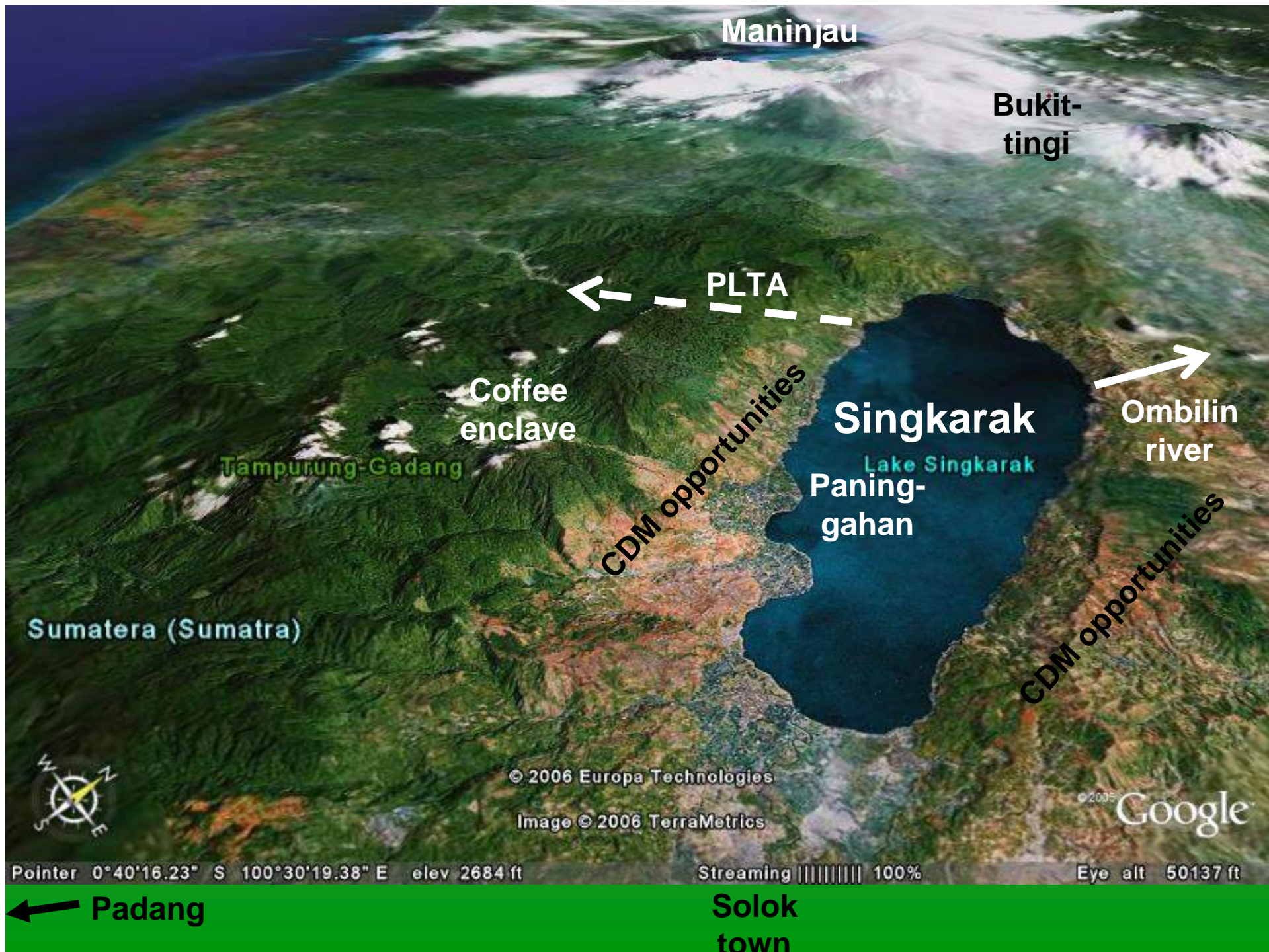
– **Voluntary**: free & prior informed consent, bargaining power

- **Realistic** – or aligned with the opportunities, opportunity costs and trade-offs that constrain the decisions of the upstream and downstream actors, linked to their preferences
- **Voluntary** – complementing existing regulation and providing ‘additionality’ from the downstream perspective and bridging collective and individual action at the upstream side, alleviating the most constraining livelihood concern
- **Conditional** – with clarity on performance and evaluation criteria in a contractual sense; conditionality can be a mix of 5 levels (Figure 4)
- **Pro-poor** – acknowledging the distributional impact of rewards on resource-poor local stakeholders and selecting mechanisms that enhance equity & gender balance

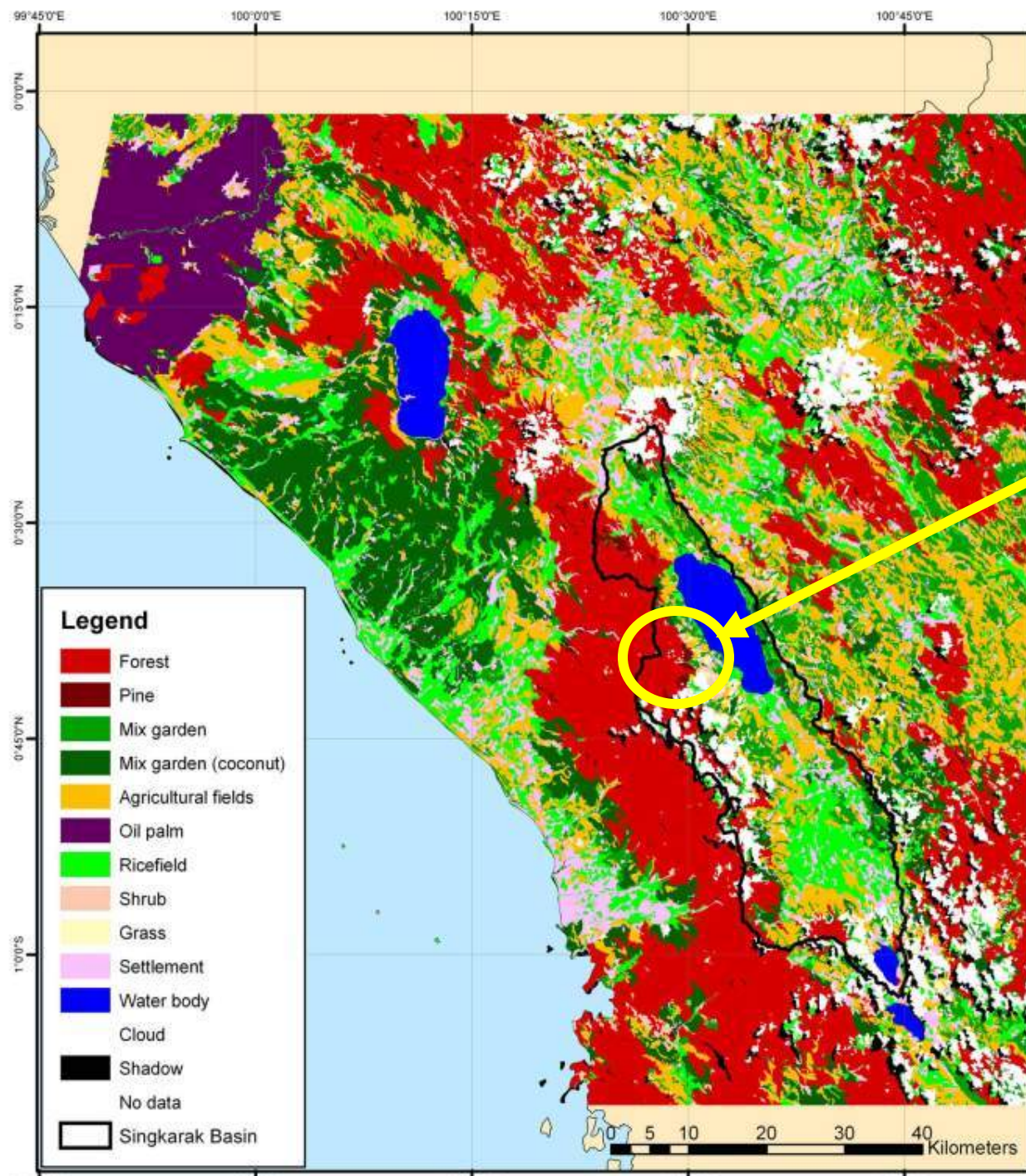
# Realistic









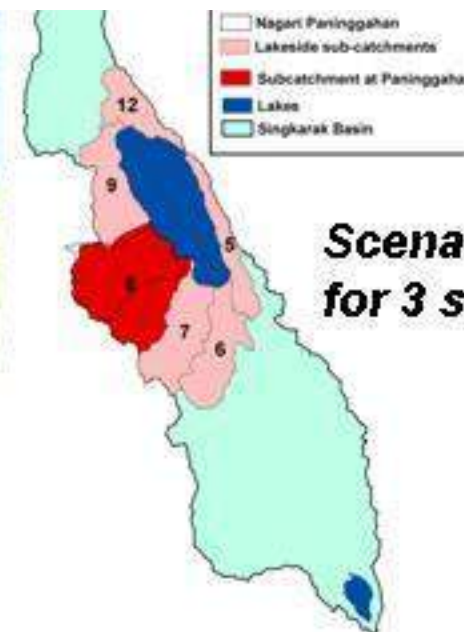
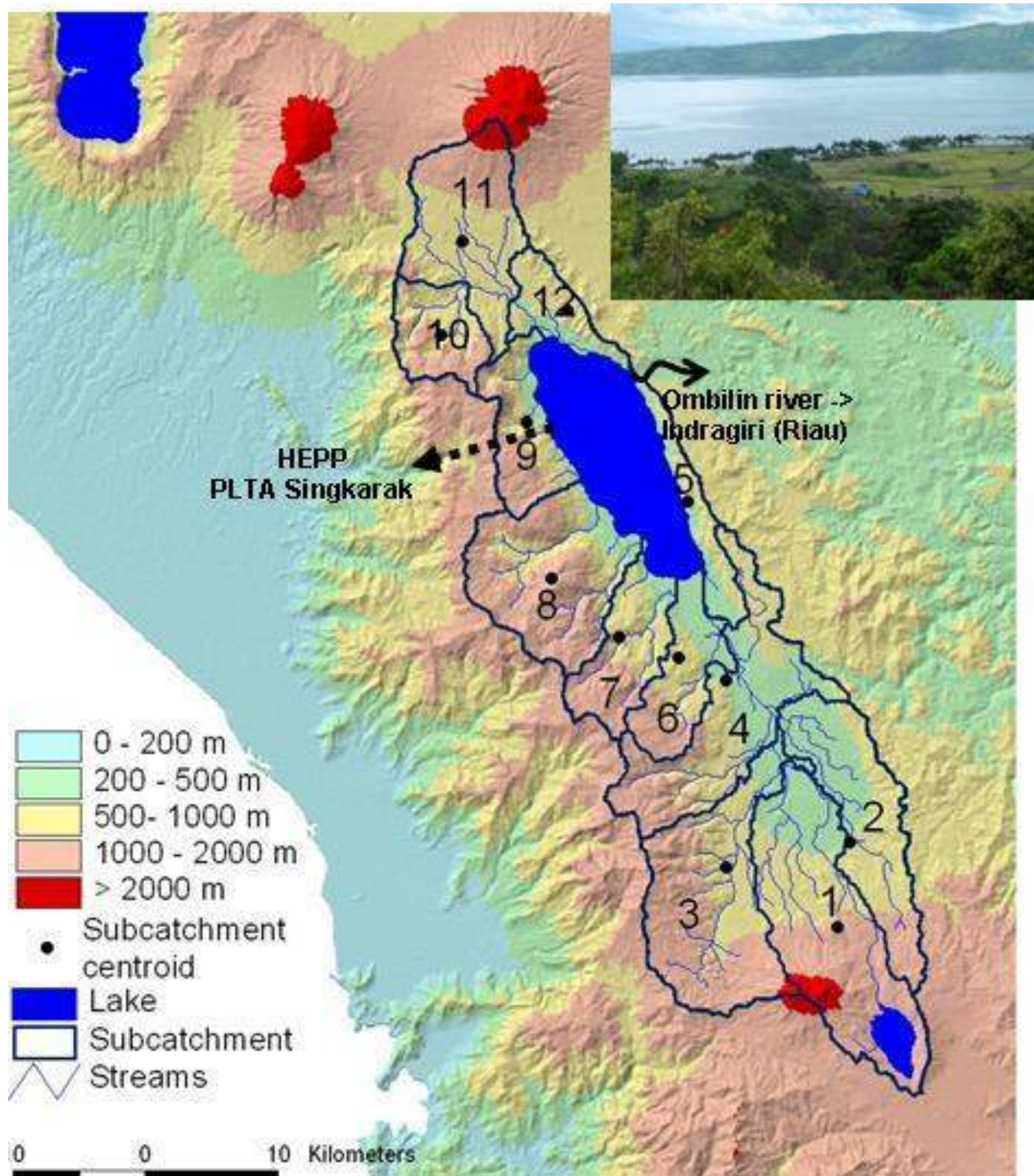


## Lake Singkarak

Paningahan –  
Nagari with  
good gover-  
nance, forest  
protection,  
interest in  
rehabilitation

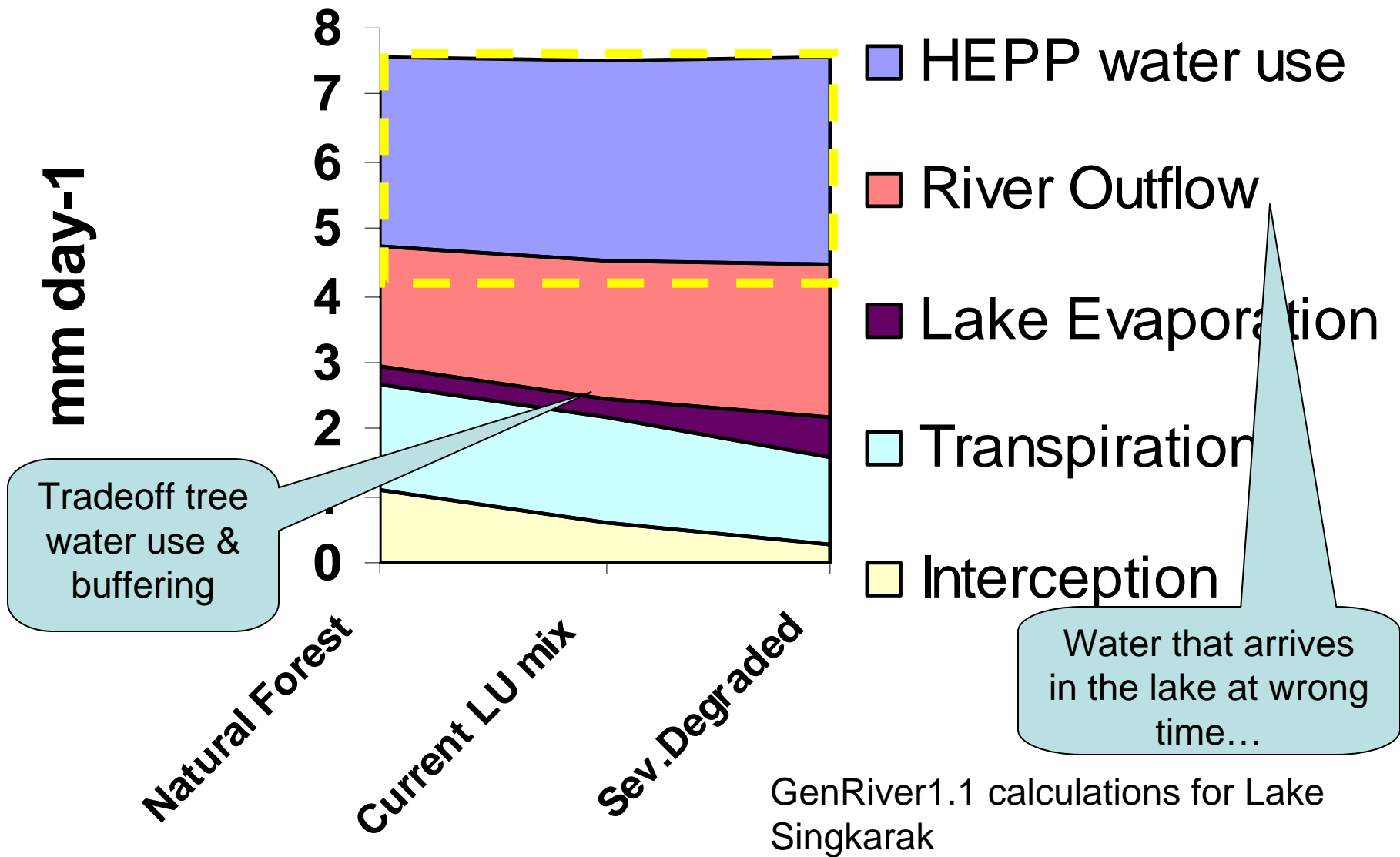
Can/should they  
get bigger share  
in hydroelectricity  
royalties as PES?





**Scenarios  
for 3 scales**

Land use change scenario's, even extreme ones, will not lead to large changes in the amount of water the hydroelectricity company (HEPP) can use



# Scoping: $K \Leftrightarrow K$

- Words (articulation of existing land use and effects on products and services, such as 'shifting forestry')
- Icons/images
- Maps of space and lateral flows
- Representation of historical roots of the present situation
- Explanatory models used by various stake-holders for local system dynamics



# Stakeholder identification: $A \Leftrightarrow A$

- Stakeholder typology based on concerns and preferences
- Maps of 'rights and resources'
- Negotiation table ('neutral')
- Workable bounds in the tradeoff between an 'all stakeholder' paradigm, leakage ('external impacts') concerns and transaction cost

# Conditional



Local  
agents

External  
agents

level

Objectives, criteria *Trust* Objectives, criteria

V

Management plans *Co-management* Management plans

IV

Actions *Input control* Actions

III

Other influences **Agro-ecosystem condition** Other influences

II

Consequences for  
Development & Environment:  
*Indicators*

I

# Voluntary





# Free and Prior Informed Consent

The roundtable on sustainable oil palm (RSOP) accepted the following criteria (a.o.) as effort to reduce the costly conflicts with local communities and claimants of land rights

- 1 Free, prior and informed consent (FPIC) principles ensure that people's voices are heard and accommodated in decision-making processes
- 2 No diminishment or loss of customary rights without free, prior and informed consent (FPIC)
3. Open and transparent communications
- 4 Compliance with the law including ratified international laws and respect for customary law
- 5 Demonstrable right to use the land and absence of legitimate land conflicts
- 6 Recognition of the right to organise and free collective bargaining
- 7 Documented and acceptable systems for resolving disputes and achieving negotiated agreements based on FPIC

# ***Voluntarily*** accepting restrictions to use 'existing rights' to negatively affect ES

## **Land**

Ownership, tenure & use rights  
Forest zonation (restrictions on forest use) on public & private lands

## **Infrastructure**

Development planning & implementation of infrastructure, resettlement, power generation, mines, industries

## **Water**

Obligations to protect riparian zones and areas surrounding springs  
Subsidy/extension programs on soil conservation and watershed

Relevance of **new legislation on 'environmental services'**? Regulating 'voluntary' restrictions on ES-reducing activities as basis for 'rewards'?

## **International conventions**

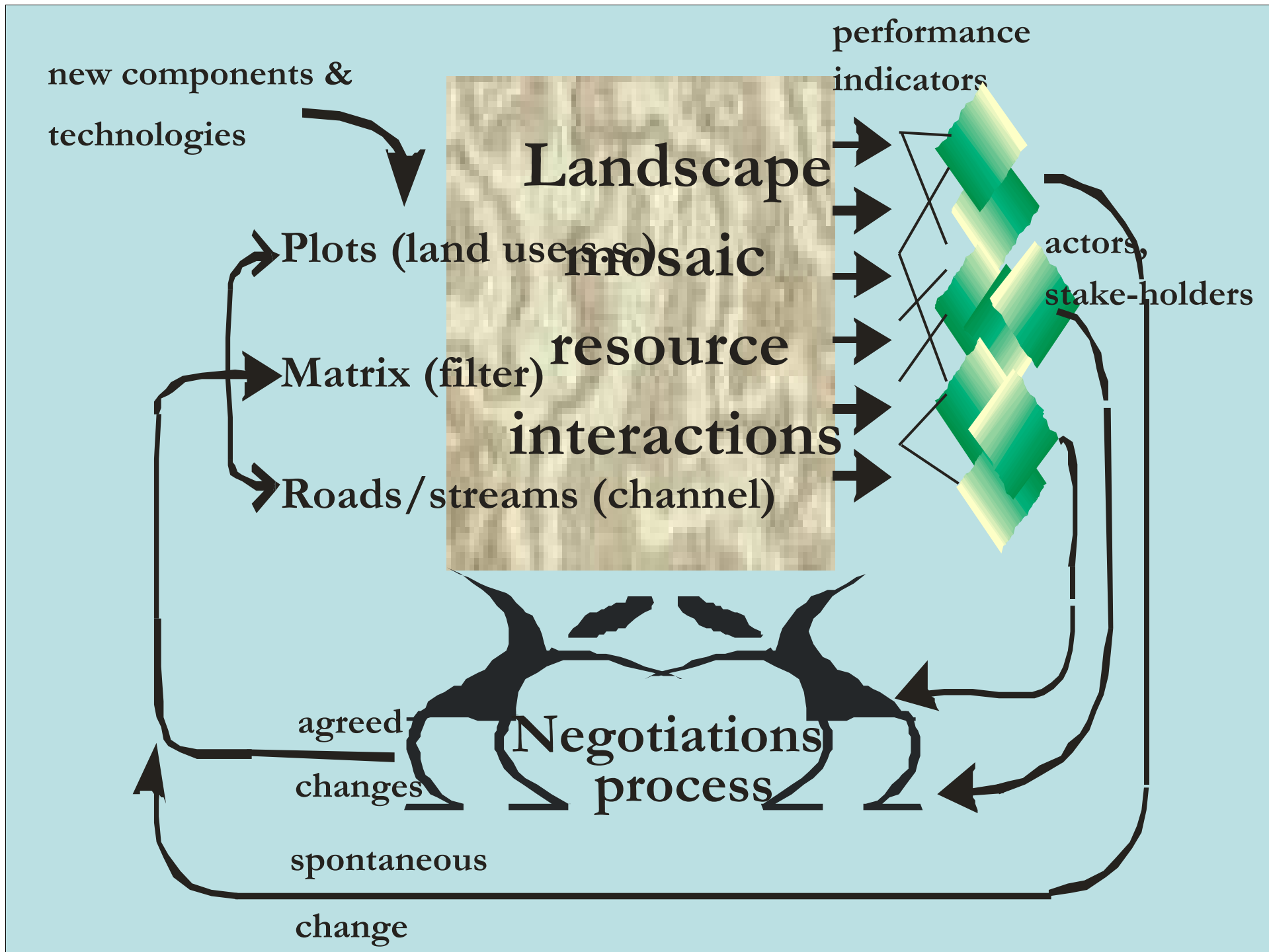
UNFCCC: Climate Change & Kyoto Protocol (CDM)  
CBD: biodiversity  
Human rights ('free and prior informed consent')  
Transparency

## **Biodiversity**

Legal protection of flora and fauna: restricting use  
CITES & restrictions on international trade  
Protected area management & buffer zones

## **Pollution (water, soil, air)**

Restrictions on use of agro-chemicals (pesticides, fertilizer) to avoid water pollution  
Regulations on waste management to avoid water pollution  
Restrictions on use of fire



**Scoping:  $K \Leftrightarrow K$**

**Stakeholder identification:  $A \Leftrightarrow A$**

**Negotiation:  $(K \Leftrightarrow K) \Leftrightarrow (A \Leftrightarrow A)$ , aiming for  
(unified  $K \Leftrightarrow$  unified  $A$ )**

**Implementation, Monitoring and Learning:  
unified  $K \Leftrightarrow$  unified  $A$   
(or reverting to  $(K \Leftrightarrow K) \Leftrightarrow (A \Leftrightarrow A)$ )**



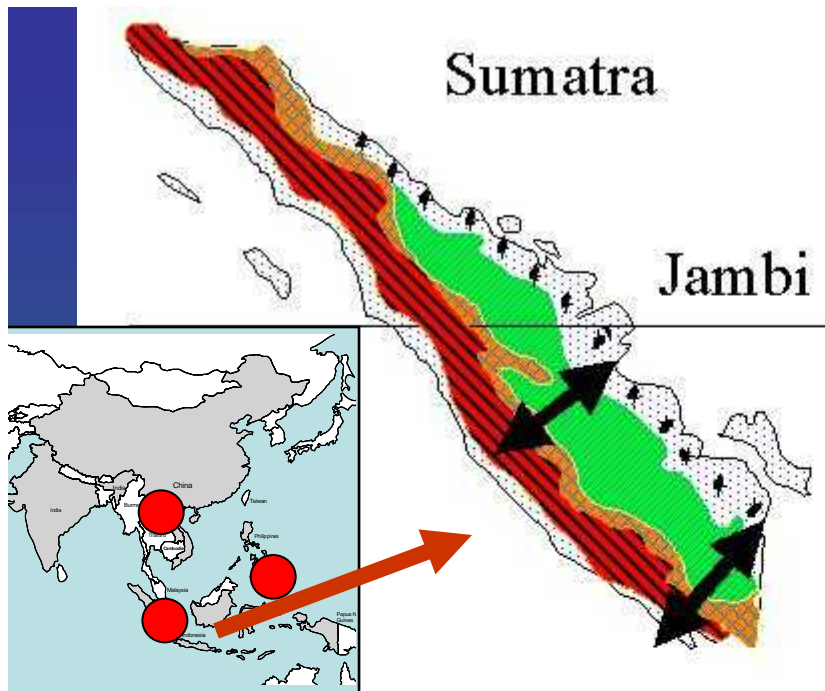
# Pro-poor & gender balanced



# PATHWAYS FOR CES TO ALLEVIATE POVERTY

- P1 Stop negative 'drivers' that enhance poverty and degrade environmental services ('PUPES')
- P2 Enhance local environmental services and resources (e.g. regular supply of clean water, access to beneficial plant and animal resources)
- P3 Enhanced security of tenure, reduced fear of eviction or 'take-over' by outsiders, allowing investment in land resources; increased asset value
- P4 Enhanced trust with (local) government, increased 'say' in development decisions
- P5 Increased access to public services (health, education, accessibility, security)
- P6 Payment for labour invested at a rate at least equal to opportunity cost of labour
- P7 Increased access to investment funds (micro credit or otherwise) for potentially profitable activities
- P8 Entrepreneurship in selling 'commoditized' environmental services



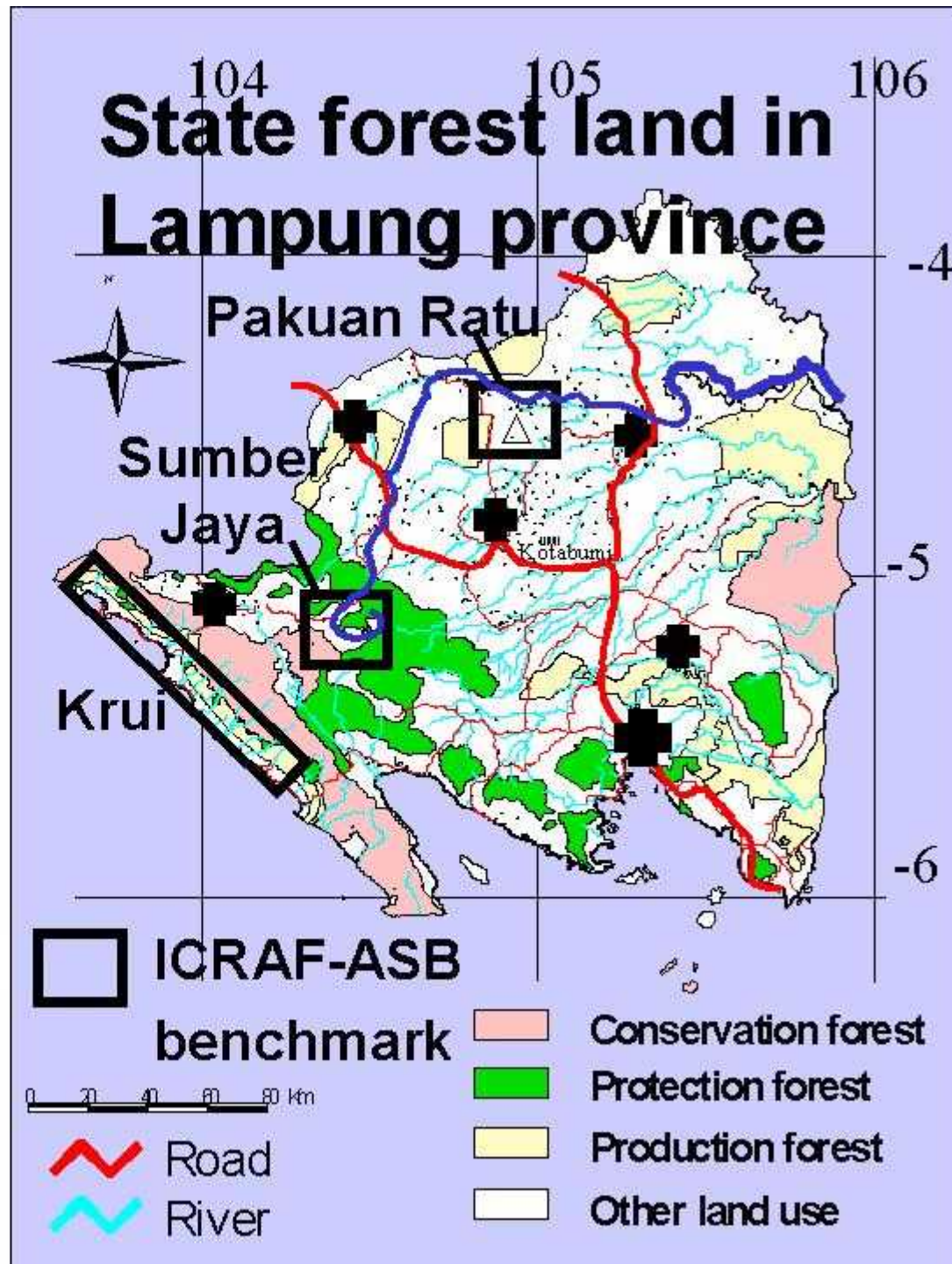


**Lampung territory:**  
3.5 million ha,  
8 million people

**State forest land:**  
1,2 million ha (32%)

**Forested:**  
20% of SFL

**Settlers:**  
0.5 million people







**HKM**

**Forest edge**

**2005/6 BASIS CRSP  
impact study**



**River  
care**



**Stream users**



**Sumber Jaya**

**3 nested scales:**

**River quality  
for hydro-electric**

# **Implementation, Monitoring and Learning: unified $K \Leftrightarrow A$ (or reverting to $(K \Leftrightarrow K) \Leftrightarrow (A \Leftrightarrow A)$ )**

- **Operational indicators for monitoring aligned with the main criteria for success**
- **Certificates of compliance to agreed standards**

# *International policy development*

## *National policy development*

RUPES  
National  
BO

## *National policy development*

RUPES  
National  
BO

## *National policy development*

RUPES  
National  
BO

*International K brokers*

*National K brokers*

Shared  
K

RU  
site

*National K brokers*

Shared  
K

RU  
site

*National K brokers*

Shared learning  
A

RUPES  
site BO

A  
RUPES  
site BO

A  
RUPES  
site BO

*Shared policies*

*Shared learning*



# **Negotiation: $(K \Leftrightarrow K) \Leftrightarrow (A \Leftrightarrow A)$ , aiming for $(\text{unified } K \Leftrightarrow \text{unified } A)$**

- Tradeoff matrix as ‘agreement to disagree’ and baseline of current ES provision
- Scenario analysis based on all major stakeholder concerns and plausible change
- Assessments of additionality, leakage and permanence
- Project Design Document (PDD) in the Clean Development Mechanism cycle
- New use of existing legal opportunities for ‘community based forest management’
- Standards of service delivery respecting multiple ‘ways of knowing’
- Contracts: conditional service delivery agreements with realistic rewards and voluntary ‘buy in’

# Invitation

We are currently designing the second phase of RUPES – anyone interested in sharing the learnings on

- Voluntary
- Conditional
- Realistic &
- Pro-poor

ES rewards, please get in contact with us....



Correspondence: [m.van-noordwijk@cgiar.org](mailto:m.van-noordwijk@cgiar.org)